

Amendments to the Specification:

Please delete the two paragraphs beginning at page 8, line 6, and substitute the following two paragraphs therefor:

-- Fig. 1 is a cross-sectional side view of a wheel hub assembly 10 constructed from a hub 12 rotatably supported on inner bearing 14 operatively associated with inner bearing race 16, and outer bearing 18 operatively associated with outer bearing race 20. A modified oil seal 22 has a seal 24 capable of sealing air. The hub 12 is secured to the axle 18 by use of a washer 26 and nut 28 connection, wheel coupling bolts 29 are shown for reference. A cap 30, commonly referred to as a dust cap, includes a seal 32 capable of sealing air. The space between the cap 30 and the oil seal 24 22 forming a enclosure defined as the closed air space 36. The cap 30 has an annular shoulder 40 that frictionally engages a mating section 42 of the hub 12. The annular shoulder 40 includes a circumferential recess therein which receives a rubber O-ring 32 so that a fully air tight seal can be achieved, thus creating a closed air system within the wheel hub 12. The wheel hub 12 includes is pressurized by use of a small DC air compressor 50 that can be mounted on the trailer or the vehicle pulling the trailer. Preferable the The air compressor 50 is preferably mounted on the trailer in close proximity to the hub assembly wherein electrical power may be obtained through the trailer harness for connection to a car battery 52. To eliminate the need for additional wiring, the air compressor can be operated from the driving light circuit wherein the compressor would have power as long as the driving lights are operating on the towing vehicle. Similarly, the air compressor can be operated

from the back-up light circuit wherein compressor operation is used only when the trailer is back-up, which is required for launching of a boat from the trailer.

The air compressor 50 is coupled to the axle by a pressure-proof hose 54. The axle 18 has a an annular pneumatic chamber 56 ~~annular~~ which is coaxially disposed on the axle with an inlet 58 located outside of oil seal 22 and an outlet 60 exhausting into the closed air chamber 36. The air compressor 50 is capable of maintaining a predetermined pressure in the closed air space, typically between 1psi and 30 psi. The actual pressure is determined by the type of seals to be employed since certain ~~seal~~ seals cannot handle the higher pressures. In the preferred embodiment, the air compressor will automatically compensate for differing loading characteristics which can change the pressure reading of the hub. For instance, if the hub is filled to 10 psi, operating the towing vehicle at highway speeds will have tendency to warm the air within the hub assembly and increase air pressure. Similarly, should the hub assembly be subjected to very cold temperatures, such as when the hub assembly is placed under water during the launching of a boat, the result will be a decrease in air pressure. This may ~~can~~ cause a false reading to an unsuspecting law enforcement official when no lost of seal integrity has occurred, but the appearance of a reduction in air pressure would otherwise indicate such an event. --

Please delete the paragraph beginning at page 10, line 18, and substitute the following paragraph therefor:

-- Fig. 2 is an exploded illustration of the wheel hub 12 and wheel and axle 18. The

axle 18 having the air inlet 58 and outlet 60. As is the conventional mode of assembly, the axle 18 is concentrically coupled to inner bearing assembly 15 and the outer bearing assembly 19. The sealing of the wheel hub is by use of the oil seal and gasket 22,24 juxtaposition to the inner bearing assembly 15. The wheel hub 12 is releasably fastened to the axle 18 by a washer 26, nut 28, and cotter pin 29. The cap 30 includes a seal 32 for providing an air tight seal along the outer bearing assembly. Pressure gauge 62 can be mounted to the cap 30 providing visual indication of seal integrity at the wheel hub. In order to provide an improved air tight seal at the point of connection of the inner bearing assembly and the axle, the system of the invention can further include the inclusion of a polished sleeve 25 which provides a smoother surface for the air seal. For instance, should an existing axle be reworked to accommodate the instant invention, the use of a sleeve can be sealing secured to the axle to provide a smooth surface for the oil seal. The greatest wear problem for the oil seal is the poor surface preparation of the axle that results in premature failure of the oil seal. The use of a sleeve on used axles provides extended oil seal life. In addition, poor manufacturing of an axle can also be rectified by the sleeve. --